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SEMICONDUCTOR MEMORY DEVICE AND ~~METHOD OF FABRICATING THE SAME~~ HAVING A METAL PLUG OR A LANDING PAD

BACKGROUND OF THE INVENTION

1. Field of the Invention

This application is a divisional of U.S. Patent Application Serial No. 10/096773 which was filed on March 8, 2002.

The present invention relates to a semiconductor memory device and a method of fabricating the same and, more particularly, to a dynamic random access memory (DRAM) having a metal plug.

2. Description of the Related Art

As the degree of integration of semiconductor memory devices such as a dynamic random access memory (DRAM) device increases, design rules and fabricating margins are generally reduced. Even with such reduction, capacitor capacitance should be maintained to operate the DRAM devices.

To provide a suitable capacitance, a capacitor having a three-dimensional configuration has been developed for increasing the capacitance per unit area. In such a configuration, a trench type capacitor, a stack type capacitor, and a trench and stack combined type capacitor have been proposed. The stack type capacitor is widely used because it utilizes conventional fabrication technology. In particular, a stack type capacitor having a capacitor over bit line (COB) is most widely used so as to easily increase the effective area of the capacitor.

Generally, the stack type capacitor has a storage electrode pad (or buried contact plug) formed of a doped polysilicon layer, and the pad is usually shaped in a narrow and long pillar. The resistance between a storage electrode of the capacitor formed over the storage electrode pad